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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,490	02/26/2004	Seiji Miura	04120/LH	7996
1933	7590	07/27/2005	EXAMINER	
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC			GRANT, ROBERT J	
220 5TH AVE FL 16			ART UNIT	
NEW YORK, NY 10001-7708			PAPER NUMBER	

2838

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/789,490

Applicant(s)

MIURA ET AL.

Examiner

Robert Grant

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1 page, 2-26-04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Peterzell (US 6,194,869).

As to Claim 1, Peterzell discloses a battery pack with a charge control function, the battery pack comprising: a charge protection circuit (Figure 1, element 28) for turning a discharge control switch (Element 38) on or off to control a discharge current which flows from a secondary battery to a load and turning a charge control switch (Element 36) on or off to control a charge current which flows from a charger to the secondary battery; and a charge control circuit having a function of turning the charge control switch on or off to stop the charging of the secondary battery through the charger when an abnormal voltage is input (Column 3, lines 29-32).

As to Claim 2, Peterzell discloses the battery pack according to claim 1, wherein: the discharge control switch includes a discharge control field-effect transistor having a gate serving as a control terminal (element 32, G), and the charge control switch includes a charge control field-effect transistor having a gate serving as a control terminal (element 30, G).

As to Claim 3, Peterzell discloses the battery pack according to claim 2, wherein: the discharge control field-effect transistor controls an overdischarge control circuit included in the charge protection circuit (Element 28, ODD, 38), and the charge control field-effect transistor controls an overcharge control circuit included in the charge protection circuit and also controls the charge control circuit (Element 28, OCD, 36).

As to Claim 4, Peterzell discloses the battery pack according to claim 3, wherein: a gate voltage of the charge control field-effect transistor is controlled to adjust a drain current thereof so that the one charge control field-effect transistor performs both charge control and overcharge control (column 3, lines 30-32).

As to Claim 5, Peterzell discloses the battery pack according to claim 1, wherein: the charge protection circuit includes a temperature detection unit (Element 18).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterzell in view of Mino (US 5,592,070).

As to claim 6, which is dependent upon claim 5, Peterzell discloses all the limitations of claim 5 which this claim is dependent upon. Peterzell does not expressly disclose detecting the temperature of discharge control switch or the charge control switch. Mino teaches the benefits of installing heat detection elements on heat producing elements such as FET's (Column 4, lines 59-67, Column 5, lines 1-4). It would have been obvious to a person having ordinary skill in the art at the time of this invention to combine the teachings of Mino, and install temperature detectors on the FET's of Peterzell to monitor the temperature and help prevent thermal runaway.

As to Claim 7, Peterzell in view of Mino discloses the battery pack according to claim 6, wherein: the temperature detection unit includes a thermistor (Peterzell, Figure 1, element 18).

### ***Conclusion***

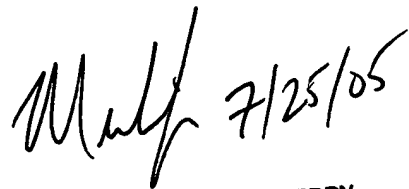
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Grant whose telephone number is 571-272-2727. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RG

 7/25/05  
MICHAEL SHERRY  
SUPERVISORY PATENT EXAMINER  
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